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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,801	01/15/2002	John A. Cook	AUS920010995US1	4753

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EXAMINER	
BULLOCK JR, LEWIS ALEXANDER	
ART UNIT	**PAPER NUMBER**
2127	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/047,801	COOK, JOHN A.	
	Examiner	Art Unit	
	Lewis A. Bullock, Jr.	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-21, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by WALKER (U.S. Patent 6,138,171).

As to claim 1, WALKER teaches a method for creating a software state machine comprising: providing a state machine object (foreman object / initial FsmInstance) (col. 8, lines 8-21); and providing an initializer object (Factory object / receiving FsmInstance), wherein the initializer object (Factory object) defines states, actions, and conditions for a software state machine (state objects / thread objects / collection objects / queue objects / timer objects / message objects) (via initializing the state machine's objects) (col. 8, lines 8-44), wherein the state machine object is configured to use the initializer object to create an array of state transition objects (state objects) and execute the software state machine using the array of state transition objects (via direct process message member function calls to the state machine instance's initialization functions) (col. 8, lines 8-44; col. 11, line 52 – col. 12, line 13; col. 13, lines 36-56; col. 7, lines 47-62).

As to claims 2 and 3, WALKER teaches the state machine object includes an object constructor method configured to create an instance of the initializer object (factory object) (col. 8, lines 35-45).

As to claims 4-6, WALKER teaches the state machine object (foreman object) is configured to create a table object (dictionary object); the initializer object (factory object) includes a table element array creation method (initialization method for the created objects); and the state machine object is configured to call the table element array creation method and create the table object using the results of the table element array creation method (col. 8, lines 22-65).

As to claims 7 and 8, WALKER teaches the initializer object includes a table variable array creation method (via creating the objects with their corresponding initializer methods); wherein the state machine object is configured to call the table variable array creation method and create an array of state variables using the results of the table variable array creation method (via initialing the objects) (col. 8, lines 22-65).

As to claim 9, WALKER teaches one of the state machine object and the initializer object (FsmInstance) implements an interface (col. 11, lines 52-55).

As to claim 10, WALKER teaches the state machine object (receiving state machine object) includes a state method that is configured to return a current state of

the software state machine (via receiving a message from a sending state machine object) (col. 7, lines 47-62; col. 7, line 63 – col. 8, line 7; col. 9, lines 32-42).

As to claim 11, WALKER teaches a method for creating software state machines comprising: providing a state machine object (FsmInstance); creating a first instance of the state machine object with a first state machine initializer (Factory object), wherein the first instance of the state machine object executes a first software state machine; and creating a second instance of the state machine object (FsmInstance) with a second state machine initializer (factory object), wherein the second instance of the state machine object executes a second software state machine (col. 11, line 41 – col. 12, line 13; col. 13, lines 37-55; col. 8, lines 22-44).

As to claims 12-21, reference is made to an apparatus that corresponds to the method of claims 1-10 and is therefore met by the rejection of claims 1-10 above.

As to claim 23, reference is made to a computer program product that corresponds to the method of claim 1 and is therefore met by the rejection of claim 1 above.

As to claim 24, reference is made to a computer program product that corresponds to the method of claim 11 and is therefore met by the rejection of claim 11 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over WALKER (U.S. Patent 6,138,171).

As to claim 22, WALKER teaches an apparatus, comprising: a state machine initializer object (factory object / receiving FsmInstance); a state machine object (foreman object / initial FsmInstance); wherein the apparatus creates an instance of the state machine object (foreman object / initial FsmInstance) and creates an instance of the initializer object (factory object / receiving FsmInstance) and uses the instance of the initializer object to create a table object (dictionary object) and an array of state variables (via creating the objects with their corresponding initializer methods), wherein the table object includes a state array creation method and a constructor method calls the state array creation method (initialiation methods of the objects) to create an array of state transition object (state objects); and wherein the instance of the state machine object uses the array of state transition objects to execute the state machine (col. 8, lines 8-44; col. 11, line 52 – col. 12, line 13; col. 13, lines 36-56; col. 7, lines 47-62). However, WALKER does not teach the system operates on a virtual machine. WALKER does teach that the software state machines can emulate the hardware

paradigm (col. 5, lines 47-50). Official Notice is taken in that it is well known in the art that virtual machines emulate hardware paradigms and therefore would be obvious in view of WALKER that the software executes on a virtual machine.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (703) 305-0439. The examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm. In late October, the examiner can be reached on (571) 272-3759.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. In late October, the examiner's supervisor can be reached on (571) 272-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER

October 18, 2004